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CEMVR-PM-M (1105-2-10c)

2 February 2000

MEMORANDUM FOR RECORD

SUBJECT: Upper Mississippi River – Illinois Waterway System Navigation Study, Governors' Liaison Committee (GLC) Meeting

1. The subject meeting was held in St. Louis, Missouri, on 18 November 1999. A copy of the meeting agenda is enclosed (Enclosure 1). Mr. George (Dusty) Rhodes, Chief, Programs Execution Division, Mississippi Valley Division, Corps of Engineers, chaired the meeting. The following individuals represented the states:

Illinois	Don Vonnahme, Gary Clark
Iowa	Jim Hall, Harold Hommes
Minnesota	Dick Lambert, Steve Johnson
Missouri	Jerry Vineyard
Wisconsin	Michael Lester

2. Enclosure 2 is a list of meeting attendees.

3. Dusty Rhodes asked if there were any comments or questions on the minutes of the 18 May 1999 and 16-17 August 1999 GLC meetings. The comment period for the May minutes was extended in response to a request at the August meeting. No comments were received, and the May and August minutes were approved as written.

4. Gary Loss, Project Manager, gave an overall study status and update on alternative evaluations. Copies of his and the other team presentations are at Enclosure 3. In response to a question regarding major rehabilitation and the lock extension improvement measure, Gary clarified that mechanical and electrical components of the lock facility would be updated, as necessary, during the lock extension work to ensure adequate functioning until the next major rehabilitation cycle. Steve Johnson indicated that, at a May 1998 Economics Coordinating Committee (ECC) meeting, he recalled a 35-year rehabilitation cycle had been discussed. At this ECC meeting Mr. McGrath presented the preliminary results of the reliability analysis performed on 19 of the 70 components that make up a lock and dam facility. The preliminary results indicated that no major rehabilitation is justified until 35-40 years out in the future. Subsequent work, completed in April 1999 by Mr. McGrath, concluded that no rehabilitation would be justified in the next 50 years. The analysis indicated that failures would occur; however, expected repair and traffic delay costs are not of sufficient magnitude to warrant rehabilitation prior to failure. This will result in a fix-as-you-go maintenance policy. Mr. McGrath's report also emphasized that this analysis only accounts for 19 of the 70 components present in the system, and that the total system needs are anticipated to be considerably higher. Bob Hughey, Engineering Team Leader, indicated that while the earlier reliability analysis reflected a less frequent cycle, incorporating historical record and experience in rehabilitation needs results in a more frequent cycle of 25 years. In addition, recent Corps of Engineers (Corps) guidance for major rehabilitation analysis calls for an expected 25-year cycle as part of study considerations. The effort summarized in this presentation reflects our professional judgment on the conditions that best represent the likely rehabilitation needs and cycles for future conditions, at this time. In response to Don Vonnahme, Bob Hughey indicated that all 1200-foot lock cost estimates are based on more detailed analyses performed for Locks 22 and 25. Dick Lambert asked if recreation traffic conflicts at the locks had been considered in our analysis. Rich Manguno, Economics Team Leader, indicated that the Corps has looked at recreation traffic, and no conflicts are anticipated due to the ability to increase the number of recreational craft per lockage.

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5. Rich Manguno gave a summary of the economic evaluations to date, the sensitivity analysis, and the Regional Economic Development (RED) analysis. Rich pointed out that the alternative evaluations including 1200-foot chambers at Upper Mississippi River (UMR) locks reflect extension of the existing 600-foot-long chamber to 1,200 feet. For the Illinois Waterway (IWW) at Peoria and La Grange, the lock measure considered to date is for a new 1200-foot long chamber being constructed landward of the existing 600-foot-long chamber, and not keeping the existing chamber operational once the new lock is completed and operating. However, additional analysis will be contained in the feasibility report which addresses the costs and benefits associated with keeping the existing chambers open on the IWW. In addition, the economic evaluations to date do not include system environmental costs, since this environmental analysis is still in progress.

While discussing the build as-soon-as-possible (ASAP) and optimally timed evaluations, Rich discussed Alternative I (mooring facilities at Locks 12, 18, 20, 22, 24; powered keel guidewall extensions at Locks 20-25 and 14-18) which was requested for evaluation at the August 1999 GLC meeting. For Alternative I, Rich indicated that the build ASAP evaluation shows no economic justification (average annual costs exceed average annual benefits) in the near term, and the optimally-timed evaluation indicates that the guidewall extensions at Locks 14-18 would not be implemented within the 50-year planning horizon.

Rich also made the following points:

- For Alternative E (mooring facilities at Locks 12, 18, 20, 22, 24; lock extensions at Locks 20-25; and guidewall extensions at Locks 14-18), the optimally timed runs have the lock and guidewall extensions being completed and fully operational 8 years later than the build ASAP runs. By completing implementation 8 years later, the average annual benefits increase by \$1.6M over build ASAP, and the majority of the additional benefits are achieved in the first 3 or 4 years of the 8-year period.

- For Alternative F (same features as Alternative E plus guidewall extensions at Peoria and La Grange), the average annual benefits for optimally-timed over build ASAP increases by \$4.6M, with measures coming online 8 to 18 years later than in build ASAP.

- For Alternative J (same features as Alternative E plus new 1200-foot-long locks at Peoria and La Grange), the average annual net benefits for the optimally timed over the build ASAP increases by \$10.4M, with Peoria and La Grange coming online 11 years later than in build ASAP. Alternative J is not incrementally justified in the build ASAP evaluation.

- Similar discussion was made for other alternatives with the main discussion focussed on Alternatives B, E, F, and J.

In discussing the sensitivity analysis, Rich indicated that this analysis provides input to plan formulation in understanding the risk and uncertainty associated with various assumptions. In discussing the sensitivity analysis on traffic projections (Slide 24), Rich clarified that the “high grain” scenario developed by Jack Faucett & Associates reflects higher corn and soybean exports, while the other commodity groups remain at the mid-scenario levels. Regarding the sensitivity on interest rates (Slide 32), Rich indicated that Corps policy requirements allow a maximum of ¼ percent change in the interest

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rates from year-to-year that is used for economic analyses. The Fiscal Year (FY) 2000 rate is 6-5/8 percent, and we are anticipating 6-3/8 percent for FY 2001 which is the rate our analysis is based on in view of an FY 2001 submittal of the final Feasibility Report. In response to Gary Clark, Rich indicated that if the rate is something other than 6-3/8 percent in FY 2001, then the analysis and report will have to be revised to reflect the actual interest rate.

In reviewing the summary tables for the sensitivity analyses (Slides 34 & 35), the following clarification points were discussed:

- In responding to Dick Lambert, Rich indicated that the 1997 price level is used as a reference point or a constant for the cost estimates. Future amounts, for both costs and benefits are discounted to reflect time-value of money, not inflation. Since all the alternative plans have varying implementation schedules, the benefits and costs are all discounted to a common year (2013) for comparison purposes.

- In responding to Chris Brescia, MARC 2000, whether we were able to account for year-to-year variability potential for the traffic projections, Rich indicated that for the long-term it is difficult from a practical standpoint to account for all the variability and factor it in on a year by year basis. For both the build ASAP and the optimally timed analyses, the same assumptions and uncertainties were applied.

6. Ken Barr, Environmental Team Leader, presented a discussion of the system environmental analysis and restated that the analysis is still underway and will be coordinated with the Navigation Environmental Coordination Committee (NECC). Ken anticipated that a read-ahead package discussing an adaptive mitigation strategy would be sent to the NECC by 18 December 1999 in preparation for the 11-12 January 2000 NECC meeting in Moline, Illinois. In discussing the information on backwater and side channel impact analyses to date, Ken indicated that for the 180 backwaters and 63 secondary channels classified for evaluation on the UMR, the analysis has identified 9 backwaters and 3 secondary channels of concern as a result of potential increases in traffic associated with several alternative plans. For the 42 backwaters and 31 secondary channels classified for evaluation on the IWW, 6 backwaters and 14 secondary channels have been identified to date as areas of concern. Ken pointed out that our analysis is still underway for the open river reach and several upper pools on the UMR, all of which will be incorporated into the plan formulation process.

For plants, Ken indicated that as much as a 5-percent loss in growth potential has been identified in some main-channel border areas as a result of the potential for increased traffic. Plant beds of concern are in about a 100-mile reach in Pools 9-13, and in areas within Pool 19. The ambient turbidity level below Pool 13 is such that plant beds cannot be sustained unless there are wider reaches of river with appropriate conditions as we see in Pool 19.

In response to a question from Steve Johnson, Ken indicated that concerns over impacts of zebra mussels on native species of mussels was being addressed as part of the Section 7 consultation and Biological Assessment for the Operation and Maintenance of the 9-foot Channel Project.

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Ken noted several general conclusions regarding fish impacts, including: forage fish are of minimal concern in regard to incremental traffic increases, and we do not see a need to mitigate for this; for commercial species, fresh water drum and catfish are of most concern from Pool 10 and downstream; and, based on our limited sampling of adult fish, we believe that the adult fish are not significantly impacted, and additional adult sampling is planned as part of our proposed adaptive mitigation program. Most of the fish impacts are from larval fish mortality from prop wash, and our focus was on those fish identified in Slide 56, Equivalent Adult Loss (EAL). The proposed avoid, minimize and mitigation measures for these impacts are listed in Slide 55, System Environmental (Fish Impacts), but may be modified during implementation of the adaptive mitigation program. In response to Jerry Vineyard regarding Slide 56, Ken indicated that the difference in equivalent adult loss between freshwater drum and carp is likely due to the density of the larval fish in the main channel and related factors. For the IWW, Ken indicates that, in view of preliminary results, he does not expect as much impact from Alternatives F and J for fish, since most of the future traffic increases are captured in the without-project condition.

Ken also discussed the concept of potential fish passage structures on the UMR. Slide 34 depicts the limiting factor the dams play on fish movement between pools, with Dams 19 and 1 creating the greatest barrier conditions. Ken, in referencing Slides 62-65, discussed the fish passage concept for Lock & Dam 19 at Keokuk, which has potential to positively address this resource concern. Don Vonnahme indicated that he has seen a successful fish passage structure at a high-head dam (80 to 90 feet) on the Columbia River where salmon and carp were both using the facility.

Ken indicated that for bank erosion considerations, resources to be addressed will include: quality forest, historic properties, special resources, and social impact areas.

In regard to Slide 68, Environmental Cost Structure by Resource and Alternative (Annualized), Ken pointed out that these costs are very preliminary estimates and subject to change. In addition, these figures are summarized and have more detailed estimates from which they are based.

Steve Johnson made several comments. Regarding the larval fish entrainment and EAL, our model does not take a compounding or cumulative assessment of killing larval fish every year, rather it restarts the counter with each new year. Considering this single-year model and that there is not good standing stock data, he believes one will not have a true sense of significance. In response to a question from Steve, Ken indicated that the Corps is basing the avoid, minimize, and mitigation measures in view of these year-to-year impact analyses for fish.

Carl Zichella, Sierra Club, restated the concern over lack of fish population data for the UMR and IWW and, therefore, questioned the ability to tackle the issue of significance. Carl also expressed his concern and perspective over the lack of adequate data to make a reasonable assessment of environmental consequences resulting from increased commercial navigation traffic.

7. Gary Loss continued with a discussion of the alternative evaluations to date. In discussing Slide 71, Alternative Plans as of 18 November 1999, Optimally Timed, Gary indicated that Alternatives E, F, and J appear to be too close in regard to average annual net benefits to identify an initial NED plan at this time. In regard to Slide 73, 3R Lock Analysis (1,200’ Lock in the Aux Bay), Gary Loss responded to Gary Clark that the Corps will address the revised design and construction approach as part of the feasibility report.

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Dusty Rhodes stressed that the Corps will proceed with the study to ensure a summer of 2000 public review of the draft Feasibility Report and draft Environmental Impact Statement (EIS), and submit the final report to Washington in December 2000. In regard to the tentatively selected plan (initial recommended plan), the District and Division Commanders can deviate from the NED plan with a clearly documented and reasonable rationale. However, Congress makes the final decision on what may get authorized for implementation. In response to Jim Hall's questions on the tentatively selected plan, Dusty indicated that the Corps does not expect the states to give a position at the February 2000 GLC meeting (Note that the GLC meeting is on 15 February 2000 not 16 February as shown in the original presentation). At that time, the District Commander (or his team) is scheduled to present a tentatively selected plan and open the debate. The states will be asked for their opinion during the Washington level review process that occurs subsequent to the study's December 2000 completion.

Regarding the summer of 2000 public review of the draft Feasibility Report and draft EIS, Dave Tipple indicated that the team is currently scheduling a 60-day review time instead of 45-days. Some of the states expressed concern over too short of a review period in view of this complex study. Dusty offered that efforts to date have been extensively coordinated, with cards on the table, and one would expect that the study coordination will help facilitate this review period. Gary Loss offered to come to the state capitals to brief the state agencies in view of facilitating discussion and understanding as we work toward next summer's public meetings. The Corps will coordinate this further in the coming months.

The state representatives had the following closing remarks:

- Jim Hall, IA, attended the 3 Nov 99 NECC meeting and complimented the Environmental Work Group and NECC participants on all the great work they have done on this cutting edge effort.

- Don Vonnahme, IL, asks that the Corps continue to look hard at opportunities for navigation improvements on the IWW, specifically at Peoria and La Grange. Don also is interested in opportunities to reduce impacts to navigation during construction. He will ask his staff and other state agencies what information they may have on stockpiling and other efforts that were taken by businesses in consideration of the 4-lock closure on the IWW in the early 1990s as part of the Corps major rehabilitations. Dusty Rhodes extended appreciation to all parties who can provide this and other types of specific information to assist in the plan formulation process.

- Jerry Vineyard, MO, wants to make sure there has been coordination between the Navigation Study and the Missouri River Master Plan. Dusty Rhodes assured Jerry that Mississippi Valley Division staff have been involved in both efforts and are fully aware of the issues. Jerry wants to ensure that commercial navigation traffic on the Middle Mississippi River will not be adversely impacted by inadequate flows from the Missouri River.

- Dick Lambert, MN, awaits the draft Feasibility Report and EIS in the summer of 2000 and understands the Chief's Report will likely be available sometime in 2001.

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9. The public attendees had the following remarks:

- Tim Sullivan, Mississippi River Basin Alliance: Dusty Rhodes clarified that the Navigation Study EIS does not include an Operation & Maintenance EIS for the existing 9-foot channel project. In response to Tim's question on addressing hypoxia in the Navigation Study, Ken Barr explained that addressing the hypoxia situation is not part of the Navigation Study and acknowledges that hypoxia is an important issue which is being addressed through other means.

- Chris Brescia, MARC 2000, stated that he has been involved in the process for 7 or 8 years, and appreciates the volumes of good information that has been generated by many individuals and the opportunities for all to be involved. He believes that the models and sensitivity analyses are good first steps and help with direction and focus from both the economic and environmental perspective, but that one must also apply practical experience in building recommendations and making decisions. He is interested in seeing the evaluation of the 12-lock option, which was discussed by the group earlier in the meeting. Chris believes that the Corps is still too conservative in the demand elasticity estimates. Regarding Don Vonnahme's remark on stockpiling and response to planned major rehabilitation, Chris recalls some past response regarding cement, less on steel, and some on grain in view of moving it between the UMR and IWW. Chris will check with some of his industry members for potential information. Chris appreciates the work the Corps and others have put into this effort to make it a better and productive study process.

- Carl Zichella, Sierra Club, restated his viewpoint that substantial gaps remain in the Corps analyses; there are no accurate baselines from which to base decisions; inadequate cumulative impacts assessment; there is not enough sampling to yield a good analysis; believes economic analysis is weak; and the Corps is moving too fast in the study to make the best decision.

- Jim Harrison, MN-WI Boundary Area Commission, asked if some regional economic analysis would also be available at the February 2000 GLC meeting along with the Initial NED plan and tentatively selected plan. Gary Loss indicated that is the current intent.

- Bill Redding, Sierra Club, asked about the status of the transcripts from the seven public workshops from the summer of 1999. Gary Loss indicated that all seven transcripts are on the Navigation Study's website as provided by the stenographers.

10. Dusty Rhodes adjourned the meeting, thanking all attendees for participating and restated the Corps intention to continue toward more complete evaluations for the February 2000 GLC meeting and completing the study in December 2000.

3 Encls

DAVID A. TIPPLE, P.E.
Project Management Branch